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SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT,
OFF COAST OF OREGON, 10 JANUARY 1976

TELEDYNE GEOTECH

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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Off Coast of Oregon, 10 January 1976

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APRIL 1976

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VELA Seismological Center

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SDCS EVENT REPORT NO. 81

Off Coast of Oregon, 10 January 1976

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	m_b	M_s
NORSAR	09:09:59.1	08:58:46	43 N	127 W	5.6	N/A
Hagfors	09:10:08.5	08:59:09	47 N	126 W	5.6	N/A

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

08:58:42.6 43.3N 127.4W 5.4 N/A

All SDCS stations were operational during this period.

The programs used for LASA, NORSAR and ALPA data recovery are presently undergoing modifications. Information for LASA short-period is reported from their Teleseism Event Report; NORSAR short-period data is obtained from their bulletin. The long-period array beam recovery for these stations will be resumed upon completion of these modifications.

Short-period signals associated with this event were recorded at all SDCS stations, LASA and NORSAR. All SP channels at HN-ME had polarity reversals; to correct this, mathematical inversions of the data were performed. Horizontal SP channels at all SDCS stations were rotated.

Long-period signals were recorded at all SDCS stations. All LP channels at HN-ME and the LP radial channel at RK-ON had polarity reversals; to correct this, mathematical inversions of the data were performed. Horizontal LP channels at WH2YK, RK-ON and HN-ME were rotated. Signal clipping at CPSO and FN-WV prevented rotation of their LP horizontal channels.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response).

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES		ELEVATION METERS	INSTRUMENTATION	
		DEG	MN SECS		SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14	00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35	41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32	58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41	19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09	43.0 N 067 59 09.0 W	213	KS36000	KS36000
NORSAR	Kjeller, Norway	60 49	25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50	20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41	41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

Note: The orientation of the radial instruments at FN-WV is assumed to be 16° + 5° based on empirical data (event recordings). Rotation, where performed, is referenced to this azimuth and may be questionable.

HYPOCENTER DETERMINATION

INPUT FOR EVENT 10 JAN 76
08:58:46.0 43.000N 127.000W 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST		
LAO	09 02 12.0	-0.1	0.1	15.4	70.1
WH2YK	09 02 52.2	0.0	0.4	18.0	347.9
RK-ON	09 03 57.4	0.3	-0.1	24.0	60.0
CPSO	09 05 18.4	-0.2	0.2	33.0	89.2
FN-WV	09 05 46.2	0.5	0.6	36.1	80.9
HN-ME	09 06 29.4	-0.5	-0.8	41.5	64.7
NAO	09 09 59.1	-0.0	-0.4	70.8	20.2

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
08:58:49.6	43.572N	127.235W	40. CALC	0.3	4	7
08:58:42.6	43.341N	127.438W	0. REST	0.5	3	7

CALC
0 . 1
0 . 0
0 1. 2 3
: . : . : . :
0 . 0. 0 0
0 . 0
0 . 0

REST
0 . 1
0 . 0
0 1. 2 3
: . : . : . :
0 . 0. 0 0
0 . 0
0 . 0

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 1.67
MAJOR 94.5KM. MINOR 31.3KM. AZ= 36 AREA= 9284 SQ.KM. REST

DATA SUMMARY

INPUT FOR EVENT 10 JAN 76
08:58:46.0 43.000N 127.000W 0KM.

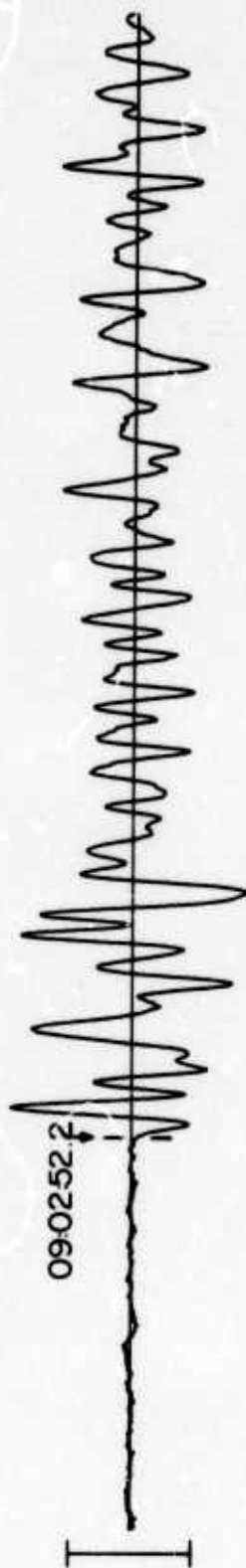
STA.	PHASE	ARRIVAL		INST	PER	A/T	MAGNITUDE		DIR	DIST
		TIME					MB	MS		
LAO	EP	09 02 19.0		SAB	0.0	0.				
WH2YKM	EP	09 02 52.2		SPZ	1.1	315.	5.10			18.0
WH2YK	LQ	09 07 29.0		LPT	25.0	1268.				
WH2YK	LR	09 08 26.0		LPZ	21.0	9999.		0.0		18.0
RK-ON	EP	09 03 57.4		SPZ	1.1	150.	5.18			24.0
RK-ON	LQ	09 11 49.0		LPT	23.0	1682.				
RK-ON	LR	09 13 30.0		LPZ	19.0	9999.		0.0		24.0
CPSO	EP	09 05 18.4		SPZ	1.1	151.	5.58			33.0
CPSO	LQ	09 16 49.0		LPN	24.0	9999.				
CPSO	LR	09 18 54.0		LPZ	22.0	9999.		0.0		33.0
FN-WV	EP	09 05 46.2		SPZ	1.0	131.	5.41			36.1
FN-WV	LQ	09 17 47.0		LPT	41.0	9999.				
FN-WV	LR	09 21 08.0		LPZ	20.0	9999.		0.0		36.1
HN-ME	EP	09 06 29.4		SPZ	1.2	72.	5.06			41.5
HN-ME	LQ	09 20 47.0		LPT	24.0	942.				
HN-ME	LR	09 23 48.0		LPZ	20.0	9999.		0.0		41.5
NAO	EP	09 09 59.1		AB	1.1	138.	5.74			70.8

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA
08:58:49.6	43.572N	127.235W	40. CALC	5.37	0.24	5
08:58:42.6	43.341N	127.438W	0. REST	5.39	0.28	5

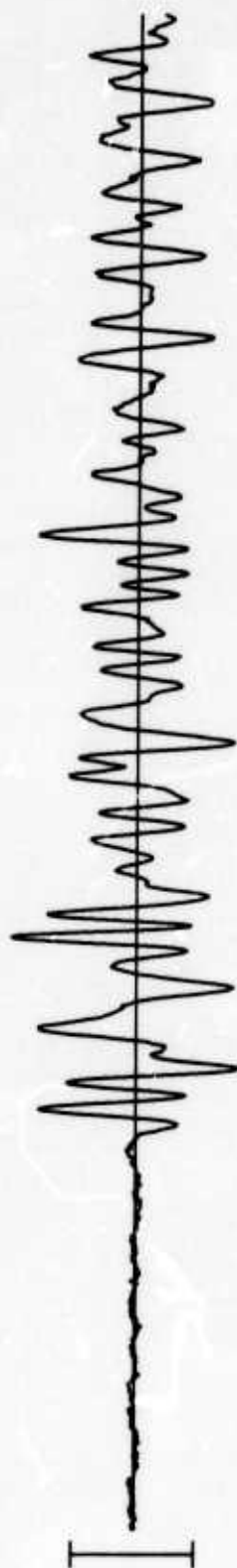
Short-period magnitudes (m_b) used in averaging are restricted to those recorded at distances between 20 and 110 degrees from the epicenter.

WH2YK 10 JAN 76

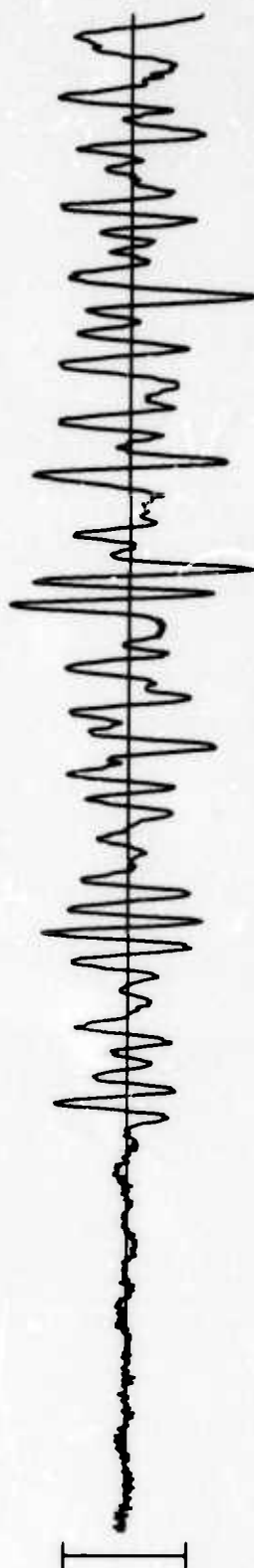
SPZ
186.73 MU



SPR
193.80 MU



SPT
102.64 MU



TIME



RK-QN 10 JAN 76

SPZ
107.50 MU

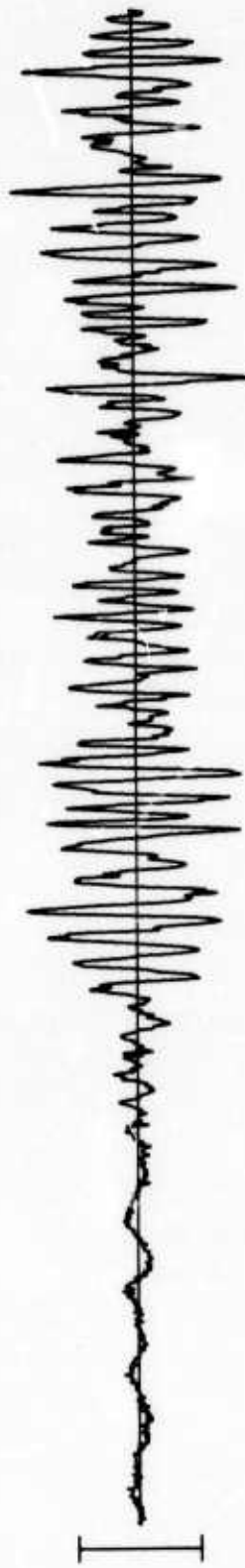


09:03:57.4

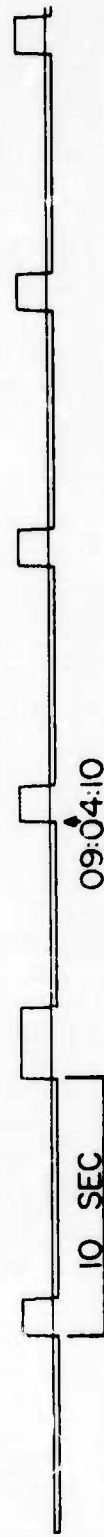
SPR
66.57 MU



SPT
22.90 MU



TIME



09:04:10

CPS0 10 JAN 76

09:05:18.4

SPZ
204.48 MU



SPR
362.01 MU



SPT
159.81 MU



TIME



∞.

FN-WV 10 JAN 76

SPZ
82.24 MU



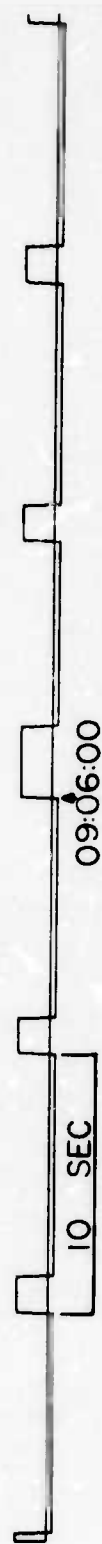
SPR
63.07 MU



SPT
41.89 MU



TIME

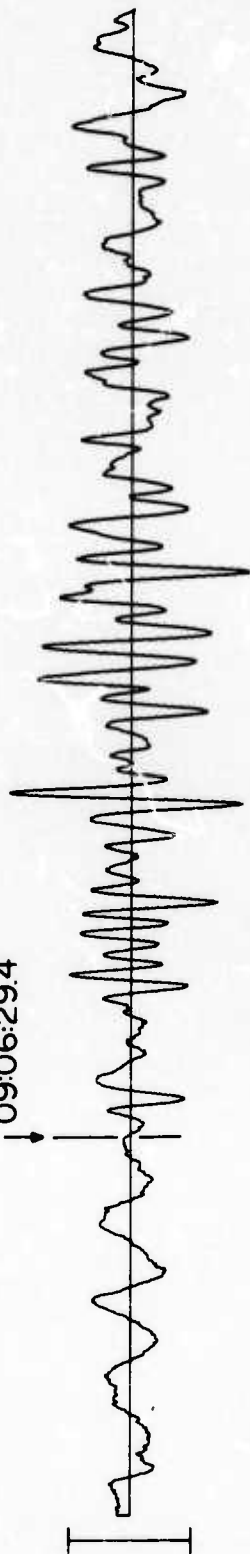


5

HN-ME 10 JAN 76

SPZ
83.05 MU

09:06:29.4



SPR
84.42 MU



SPT
41.23 MU



TIME



10 SEC

09:06:40

WH2YK 10 JAN 76

LPZ
5830.80 MU

09:08:26

LPR
8803.57 MU

09:07:29

LPT
16397.14 MU

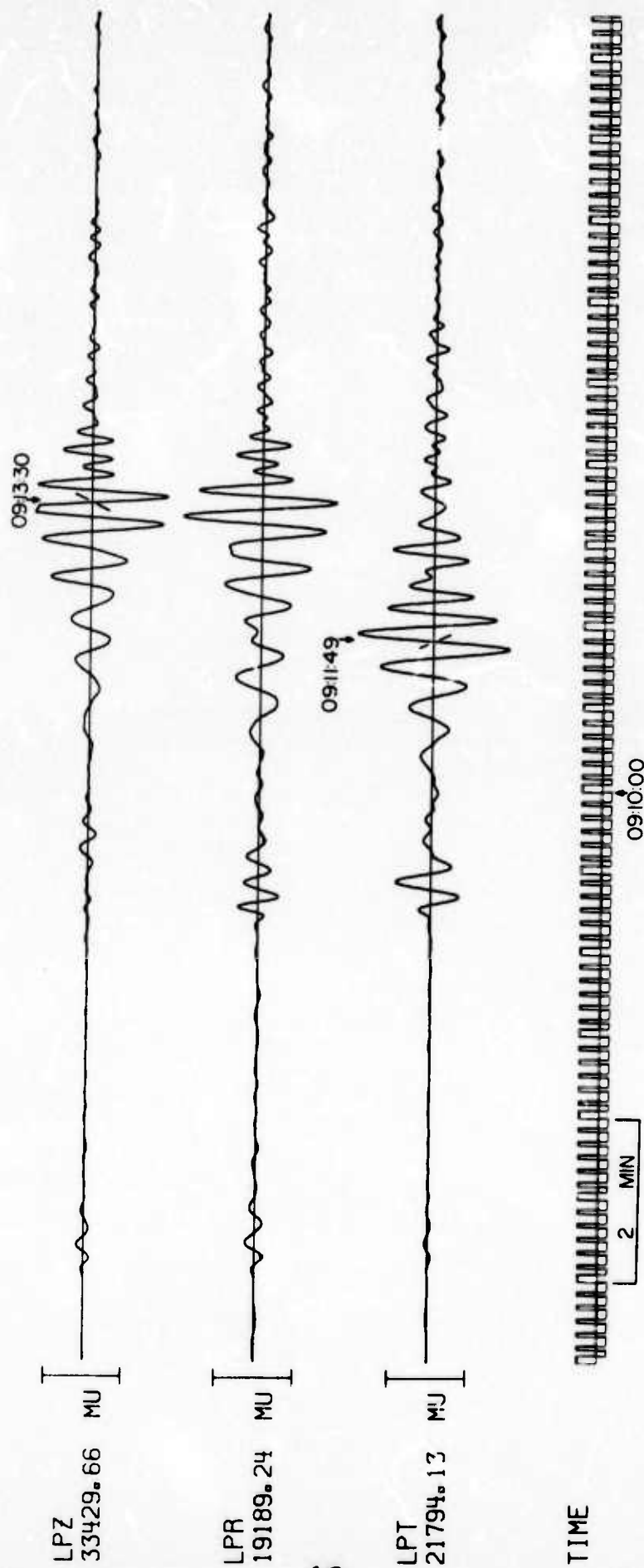
TIME

2 MIN

09:03:00



RK-ON 10 JAN 76



CPS0 10 JAN 76

LPZ
14204.30

091854



LPN
16937.37

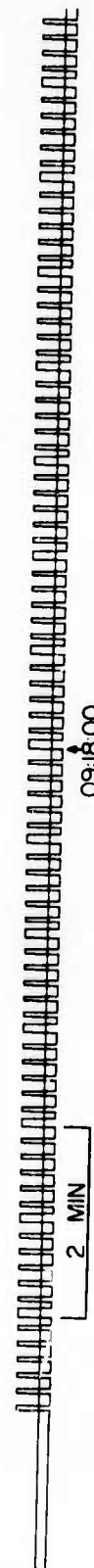
091649



LPE
12802.53



TIME



FN-WV 10 JAN 76

09:21:08

LPZ
4738.19 MU

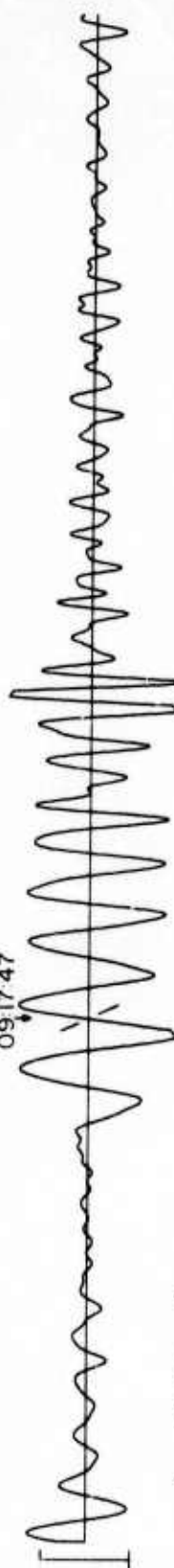


LPR
4800.56 MU



09:17:47

LPT
5477.06 MU



2 MIN

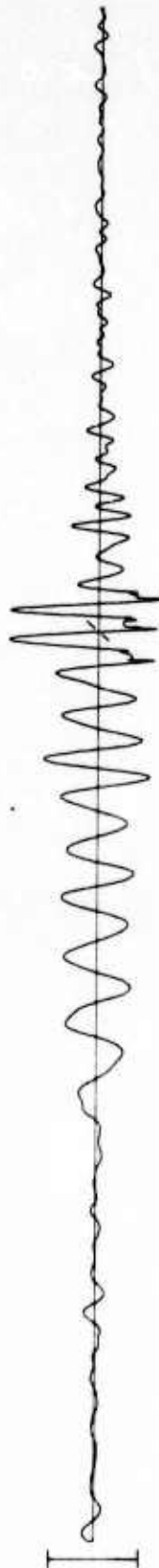
14.

HN-ME 10 JAN 76

092348

LPZ
10101.81

MU



LPR
9318.32

MU



LPT
11367.13

MU



TIME



15.